Shephard, Burt

From: John Toll <JohnT@windwardenv.com>
Sent: Wednesday, July 09, 2014 4:02 PM
To: Conley, Alanna; Shephard, Burt

Cc: Koch, Kristine; Muza, Richard; Barbara Smith; Jim McKenna

Subject: RE: CAG questions about sturgeon sampling

Alanna and Burt,

Barbara Quinn asked for the study or basis of the "known movement patterns" referred to in the following statement in the answers to CAG questions on Lower Willamette River sturgeon sampling that you sent me Alanna, yesterday evening:

"The age class selected for sampling (sub-adult fish not yet spawning, less than five feet long) was believed the age class most likely to have the greatest exposure to Portland Harbor, based on the known movement patterns and habitat requirements of various age classes of white sturgeon."

Here are select references that we cited in the April 23, 2004 Programmatic Work Plan (Appendix B, Ecological Risk Assessment Approach). I was not involved with the project until 2006 so I don't have first-hand knowledge of the discussions that took place in 2003-04 re: the ecological risk assessment approach for white sturgeon, but the answer is pretty straightforward.

Burt, since you're taking the lead on responding to Barbara's questions maybe you can convey that the 2004 Programmatic Work Plan cites ~20 relevant studies and that it was the collective professional judgment of LWG and EPA and other agency scientists, informed in part by this body of literature and in part by prior experiences of the collective team.

John

References

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From: Conley, Alanna [mailto:conley.alanna@epa.gov]

Sent: Tuesday, July 08, 2014 7:01 PM

To: Shephard, Burt; John Toll **Cc:** Koch, Kristine; Muza, Richard

Subject: FW: CAG questions about sturgeon sampling

Burt, these are the questions for the sturgeon talk with Barbara Q tomorrow at 5:30pm. Also provided is the revised response to #3 (attachment) after input from FWS and the Port of Portland. Thanks

From: Barbara Quinn(b) (6)

Sent: Thursday, June 19, 2014 1:44 PM

To: Barbara Smith

Cc: Jackie Calder; Jim Robison; Conley, Alanna

Subject: Re: CAG questions about sturgeon sampling I have a few further questions about your answers.

1. 1) the "...answers" document you sent says "This type of habitat [spawning] is not present in Portland Harbor, minimizing the likelihood that spawning adults and early life stage sturgeon are present at the site."

An ODWF memorandum attached from Sept 2013 says the opposite. Young sturgeon are present, though spawning habitat is upriver:

- 1. "• However, we do have indirect and direct evidence that both the area immediately adjacent to T4 and the environs upstream and downstream of the terminal, are a) suitable rearing habitat for age-0 through sub-adult life stages of white sturgeon, and b) the area appears to be a migration corridor for adult white sturgeon that spawn upstream of this location:
 - According to age-0 and juvenile white sturgeon rearing habitat suitability indices developed by Parsley and Beckman (1994), depth and substrate composition (e.g., mud, silt, sand and gravel) in the area are highly suitable for these life stages of white sturgeon;
 - During a 2010 young-of-year evaluation age-0 white sturgeon were detected approximately 1.5 miles upstream of the T4 boundary, juvenile white sturgeon (< 400 mm FL) were detected less than 0.5 miles upstream of the T4 boundary"
- 1. 2) "The age class selected for sampling (sub-adult fish not yet spawning, less than five feet long) was believed the age class most likely to have the greatest exposure to Portland Harbor, based on the known movement patterns and habitat requirements of various age classes of white sturgeon."

Can you refer us to the study or basis of the known movement patterns that statement refers to?

- 3) is the amount of sturgeon sampled (15) comparable to other fish species collected & sampled?
- 4) Is the Oregon limit on size of keeper sturgeon (the basis for sampling size) subject to change over time?
- 5) What is the viable plan for removing sturgeon from Slip 1 prior to berm construction. Does the Port have one?

thanks, Barbara

From: Madalinski, Kelly [mailto:Kelly.Madalinski@portofportland.com]

Sent: Thursday, July 03, 2014 1:01 PM

To: Barbara Smith

Subject: FW: Answers to sturgeon questions from CAG meeting

Thanks for forwarding the additional feedback Alanna/EPA received from ODFW on the answers relating to sturgeon. The feedback from ODFW is very helpful. The response ODFW commented on was a response in the January 2013 FAQ to a question specifically asking about potential impacts to sturgeon wintering habitat in an area adjacent to T4 and not specifically within Slip 1. Therefore, ODFW feedback catches the differences between the two questions and ultimately the response. I worked with our consultant and below are a few suggested clarifications to more fully address potential impacts to sturgeon habitat both within and outside of Slip 1 if a CDF were to be approved and constructed. The changes are in red. Feel free to pass this along to Alanna/EPA.

Feel free to pass this along to Alanna/EPA Thanks and have a good 4th of July. Kelly

Response to question #3:

EPA will also look to other agencies, authorities and community members for input on management measures to accommodate sturgeon habitat. EPA plans to consult with Trustee Council representatives, including ODF&W, Tribes, NOAA and Oregon DEQ on best management measures and incorporate practices required in CWA permits into the process. The U.S. Fish and Wildlife Service has performed and published results of extensive monitoring of white sturgeon and their habitat requirements in the lower Columbia River, between the mouth of the river at Astoria, OR extending upstream to McNary Dam. The community also has an opportunity to make recommendations on safe fish removal if CDF option is selected in the final plan.

In the Frequently Asked Questions on Confined Disposal Facilities document, dated January 14, 2013 (and later in its shortened version, dated August 22, 2013), EPA addressed potential impacts on sturgeon habitat in a wintering area adjacent to Terminal 4 (T4) in relation to the potential CDF at Terminal 4 (T4). The following is a summary of that response along with additional clarification related to potential impacts to sturgeon habitat within Slip 1 at T4:

Sturgeon are not expected to be significantly impacted by the construction of the T4 CDF. Sturgeon tend to congregate in the deep water within the main channel of the Willamette River adjacent to and upstream of the T4 CDF location and could also be present in Slip 1. If approved by EPA as part of the final cleanup process, the T4 CDF berm would be constructed at the mouth of and within Slip 1, so any habitat in front of T4 is not expected to be directly impacted by the CDF construction. No sediment disturbing activity would occur in the river outside the mouth of Slip 1. The possible CDF at T4 is being designed so that groundwater moving through the CDF and exiting through the berm will comply with state and federal water quality criteria at the face of the berm, including aquatic life criteria. Therefore, no contamination of either sturgeon or their food base is expected.

Construction of the T4 CDF will would result in the loss of some off channel habitat within Slip 1, including sturgeon rearing habitat. Impacts to aquatic habitat must would be evaluated as part of the Clean Water Act Section 404 Analysis and any loss resulting from the discharge of fill or dredged material must would be compensated for through mitigation.

Kelly Madalinski

Environmental Program Manager, Port of Portland Box 3529, Portland, OR 97208 Ph: 503.415.6676 / Cell: 503.349.7526

kelly.madalinski@portofportland.com